

Remarks

Claims 1-2, 4-19, and 21-24 are pending in the application and have been finally rejected. Claims 1, 11, 19, and 24 have been amended. The subject matter of the amended claims is believed to be encompassed within the scope of the original claims and should not, therefore, raise issues that would require a new search.

Claims 1, 2, 4, 5, 7, 10, 11, and 14 were rejected under 35 U.S.C. 103(a) as being unpatentable over Monroe in view of Wissman. Claims 6 and 16-18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Monroe and Wissman in view of Ogasawara. Claims 8, 9, 12-13, 15, and 19-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Monroe and Wissman in view of Bellman Jr. These rejections are respectfully traversed.

As amended, claim 1 recites:

A system for switching between a plurality of video cameras without a multiplexing device such that a video signal from only one of the plurality of video cameras is output at any given time, the system comprising:

a camera controller for controlling the plurality of video cameras;

a plurality of physically-separate, addressable power switches, wherein each addressable power switch is coupled to and controls power applied to a corresponding video camera, wherein each addressable power switch comprises a wireless receiver for receiving a control signal to either supply or switch off power to the corresponding video camera;

an output device capable of receiving a video signal from any of the plurality of video cameras and configured to output the video signal received; and

a switch controller controlled by the camera controller for addressing the plurality of addressable power switches, wherein the switch controller comprises a wireless transmitter for transmitting the control signals to the

addressable power switches such that power is applied to only a single selected video camera.

These claimed features are advantageous in that a user may add any number of video cameras to the system without worrying about the limitations of a video switching device (or multiplexer). Normally, a multiplexer provides a fixed number of inputs that are multiplexed onto a single output. Unfortunately, to add more cameras than the number of inputs on the multiplexer, a larger multiplexer or a combination of multiplexers must be used, which significantly increases the cost of the system. Large video multiplexers are expensive.

This is precisely the problem with Monroe's system. Monroe's cameras are always active, producing video signals that would interfere with each other without a multiplexer (96). Therefore, as shown in FIGs. 3, 4, and 7, he provides a multiplexer (96) implemented as a matrix of interconnected switches (100, 102, 104) that determines which signal(s) will be displayed, transmitted, and/or recorded.

To expand the number of video cameras, Monroe would require a multiplexer with additional inputs. Unlike the claimed invention, however, his switches (100, 102, 104) are physically connected by wires to form a hardware device, *i.e.*, a multiplexer. Monroe's multiplexer will always have a fixed number of inputs that, when exceeded, will require a new multiplexer.

By contrast, the claimed system "switches between video signals ... without a multiplexing device." The claimed "physically-separate, addressable power switches" are not connected by wires as in Monroe. Rather, the claimed power switches are wirelessly controlled by a central controller such that power is applied to a single selected camera, allowing for potentially infinite expansion of cameras.

In the Office Action, the examiner equates Monroe's switching matrix (multiplexer) with the claimed plurality of "physically-separate addressable power switches." However, the switches that comprise Monroe's multiplexer are not power switches on lines carrying electrical current, but are video switches for redirecting video signals.

In other embodiments (e.g., FIGs. 5-8), Monroe discloses cameras with wireless transmitters. However, Monroe still does not output a video signal from a "single video camera" as required by amended claim 1. According to Monroe, "[e]ach signal [from cameras 20 .. 50] is received by an antenna ... and deciphered by matching receivers 120,122,124,126 . . . 150." Thus, not only would Monroe require a larger multiplexer to accommodate additional video cameras, but he would also require an additional video receiver for each new camera.

By contrast, the present invention does not require multiple video receivers because, as recited in claim 1, only a "single video camera" produces a video signal "at any given time." There is no problem with interfering video signals from other video cameras because only a "single selected camera" is active. Thus, no "multiplexing device" is required, as claimed.

Claim 2 recites at least one addressable power switch that is integrated with a corresponding video camera. None of Monroe's switches (100, 102, 104) are integrated with the video cameras. Indeed, it would be difficult to say that any particular switch is used with any particular camera. Not one of Monroe's switches could be said to be "formed or united into a whole" (or any other definition of "integrated") with one of the cameras.

The addition of Wissman does not cure the deficiencies of Monroe. Wissman merely discloses a technique for extending the recording time of a camcorder by providing an infrared control switch (36) that disconnects the camcorder's battery. Wissman's system is used, for instance, in creating time-lapse photography.

Initially, there is no motivation, aside from hindsight reliance on the applicant's own teachings, for combining Wissman with Monroe. Wissman does not relate to switching between cameras. Indeed, Wissman has only a single camera. One of ordinary skill in the art would not turn to a battery-saving device for a single video camera when attempting to design a video switch for multiple cameras.

Even if the references are combined, the combination would not produce the claimed invention. For example, if the Examiner is proposing to replace Monroe's switches (100, 102, 104) in FIG. 3 with Wissman's infrared control switches (36), the result would not be identical to the claimed invention. Although control of the switches would be wireless, the switches would still need to be wired together in the depicted multiplexer (96) in order to selectively direct video signal(s) to a monitor (55), image transceiver (76), and/or recorder (70). In order to add more cameras to the proposed combination, the multiplexer (96) would need to be redesigned.

Moreover, as noted above, the switches in the proposed combination would still not be the claimed power switches. Monroe's switching matrix (96) is used for redirecting video signals, not electrical current.

Alternatively, if the Examiner is proposing to add Wissman's infrared control switches (36) to the wireless cameras of FIGs. 5 and 7, such a combination would still not produce the claimed invention. First, Wissman's switches are "infrared,"

which requires essentially line-of-sight transmission to operate. This would not work for surveillance applications where cameras are located in different rooms.

Second, to control multiple switches from a single switch controller, there would need to be a means for "addressing" a particular switch, as recited in claim 1, which is not taught or suggested by the references. Wissman only pertains to a single camcorder, so there is no need for a different signals to address different switches. Likewise, because Monroe's cameras are always active, there is no need for him to address a particular camera.

Third, because Monroe's cameras are always active, a separate video receiver (120..150) is required for each camera, as shown in FIGs. 5 and 7. Thus, the proposed combination would need to include multiple video receivers, which would greatly increase the expense of adding new cameras, since additional video receivers would be needed.

Fourth, Monroe's system relies on the fact that the cameras are always active. For example, in FIG. 3, the multiplexer (94) can send different video signals to different display, transmission, or recording devices at the same time. Likewise, in FIG. 4, the split screen electronics (106) allows "more than one image [to] be simultaneously displayed, transmitted or captured." Furthermore, if all of the cameras are not active as in the claimed invention, there would be no purpose for the synchronization module (90) of FIG. 3, 6, 7, and 8, which is used for "frame by frame synchronization" of different video signals.

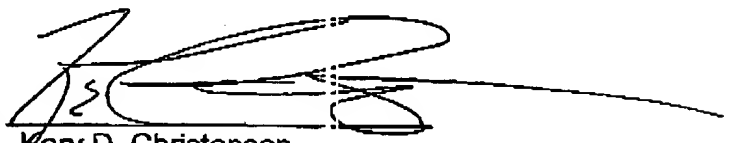
Thus, if the Examiner is proposing to make only one of Monroe's cameras active at "any given time," as required by claim 1, all of the above-described features involving multiple video signals would be rendered inoperable.

Finally, there is no teaching or suggestion in either reference, or a combination of the references, for video switching by supplying power to "only a single selected video camera." In Monroe, power is supplied to all of the cameras. In Wissman, there is only one camera, so there is no "selected" camera (implying that there is more than one camera from which to make a selection).

In view of the foregoing, the applicant respectfully submits that claim 1 is patentably distinct over the cited references, alone or in combination. Claims 11, 19, and 24 have been amended to include similar limitations. All other claims depend directly or indirectly from claims 1, 11, 19, and 24. Accordingly, the applicants respectfully submit all pending claims herein, i.e., claims 1-2, 4-19, and 21-24, are in condition for allowance. A notice of allowance is respectfully requested.

Respectfully submitted,

Paul G. Allen et al.

By 
Kory D. Christensen
Registration No. 43,543

STOEL RIVES LLP
One Utah Center Suite 1100
201 S. Main Street
Salt Lake City, UT 84111-4904
Telephone: (801) 328-3131
Facsimile: (801) 578-6999
Attorney Docket No. 50588-175